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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/588,095

07/28/2006

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EXAMINER

BAUM, STUART F

ART UNIT

PAPER NUMBER

1638

MAIL DATE

DELIVERY MODE

11/17/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/588,095	Applicant(s) SUNG ET AL.	
	Examiner STUART F. BAUM	Art Unit 1638	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 September 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 14-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 14-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 July 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>9/12/2006 & 9/16/2008</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 14-16 are pending.

Claims 1-13 have been canceled.

Claims 14-16 have been newly added.

2. Applicant's election with traverse of Group I, claims 14 (in part) and 15-16, drawn to a nucleotide sequence set forth in SEQ ID NO:1 (mdmads14 gene) (page 5 of Remarks, paragraph B), in the reply filed on 9/15/2008 is acknowledged. The traversal is on the ground(s) that the technical feature of the present invention is described in claims 14-16, specifically, the nucleotides of SEQ ID NO:1 and 2, which share 93% identity (page 5 of Remarks, 4th paragraph). Applicants contend the present method provides increase of germination speed, increase of germination rate, change of sepal into fruit flesh, delay of ripening and formation of parthenocarpic fruit/inhibition of bearing fruit.

This is not found persuasive because the instant claims are drawn to a method of regulating active gibberellin synthesis in a plant comprising constructing an expression cassette comprising an isolated gene encoding an amino acid sequence having at least 85% homology within the region other than MADS-domain, and regenerating a transformed plant, which is taught in the prior art. Meyerowitz et al (1998, U.S. Patent Number 5,744,693) teach a nucleic acid sequence of SEQ ID NO:6 which exhibits at least 85% homology within the region other than MADS-domain and plant transformation therewith. The Office contends because of the indefiniteness of Applicants' claim, as discussed below, Meyerowitz et al disclose the technical feature of Applicants' invention.

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3. The requirement is still deemed proper and is therefore made FINAL.
4. Claims 14-16, including SEQ ID NO:1, are examined in the present office action.

Sequence Rules

5. This application contains sequence disclosures that are encompassed by the definitions for nucleotide and/or amino acid sequences set forth in 37 CFR 1.821(a)(1) and (a)(2). However, this application fails to comply with the requirements of 37 CFR 1.821 through 1.825.

Sequence identifiers are missing from Figures 1-3. Sequence identifiers can be added to the Figures or Brief Description of the Drawings.

Full compliance with the sequence rules is required in response to this Office action. A complete response to this Office action must include both compliance with the sequence rules and a response to the issues set forth herein. Failure to fully comply with both of these requirements in the time period set forth in this Office action will be held to be non-responsive.

Information Disclosure Statement

6. Only the titles listed in the International Search Report have been considered. The recitation "International Search Report for PCT..." is not appropriate for printing on the front of a patent.

Claim Objection

7. Claim 14 is objected to for being drawn to a non-elected invention. Correction is requested.

Claim 14 is objected to for being an improper form of a Markush claim. The phrase “selected from a group consisting of” should be replaced with --selected from the group consisting of--.

Claim 15 is objected to for being an improper form of a Markush claim. The phrase “selected from a group consisting of” should be replaced with --selected from the group consisting of--. In addition, the phrases “vegetables such as”, “food crops such as” and “industrial crops such as”, etc should be deleted.

Claim 16 is objected to for reciting “shows any of phenotypes selected from” instead of --shows any of the phenotypes selected from the group consisting of--.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 14-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The rejection included dependent claims.

Claim 14 is indefinite for reciting “a gene encoding an amino acid sequence having at least 85% homology within the region other than MADS-domain”. Applicants have not included a reference sequence to which another sequence can be compared.

Claim Rejections - 35 USC § 102

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 14-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Meyerowitz et al (1998, U.S. Patent Number 5,744,693).

The claims are drawn to a method of regulating active gibberellin synthesis in a plant comprising constructing an expression vector comprising an isolated gene encoding an amino acid sequence having at least 85% homology within the region other than MADS-domain, wherein the transgenic plant shows any of phenotypes of increase of germination speed, increase of germination rate, change of sepal into fruit flesh, delay of ripening or formation of parthenocarpic fruit.

Because of the 112 second paragraph rejection of “an isolated gene encoding an amino acid sequence having at least 85% homology within the region other than MADS-domain” as discussed above, the Office interprets this element of the claim to be drawn to any MADS-domain containing protein.

Meyerowitz et al disclose nucleic acid sequences that encode MADS-box containing transcription factors that are transformed into plants (column 11, lines 9-17; columns 12-18, Example 1). Meyerowitz et al disclose that the transformed plants exhibited carpelloid organs in the first and fourth whorls which the office interprets as “change of sepal into fruit flesh” and as such, Meyerowitz et al anticipate the claimed invention.

10. No claims are allowed.

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11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stuart F. Baum whose telephone number is 571-272-0792. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anne Marie Grunberg can be reached at 571-272-0975. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-1600.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Stuart F. Baum/
Stuart F. Baum Ph.D.
Primary Examiner
Art Unit 1638
November 4, 2008